

DISTRIBUTION AND CHRONOLOGY OF DOG TYPES

The final step in the analysis was to look at how the distribution of dog types vary over geographic distance and through prehistoric time. Table 10-1 is a summary of the distribution of dog types geographically and chronologically by skeletal element count. The total number of elements of each type and their relative frequency are given per site, by relative age of the associated deposits (i.e. designated culture type).

Some sites, such as Ozette (45CA24) and St. Mungo Cannery (DgRr 2), have a high proportion of associated elements from one or a few individuals which may bias the pattern to some degree. Table 10-2 is thus a geographic and chronological summary based on minimum number of individuals (MNI) rather than element counts. The tally by MNI removes the bias of those sites which have a high proportion of intact skeletons. However, this bias is replaced with one introduced by sites (such as the Beach Grove Golfcourse site, DgRs 30) which contain large numbers of "isolated" finds. Some of these specimens could actually be associated elements found out of context because of deposit disturbance and/or excavation techniques and thus belong to relatively fewer individuals than the specimen count suggests. Both methods have their drawbacks and should be considered together. In this case, when both MNI and NISP totals are expressed as a relative frequency of each dog type represented per site, the pattern is essentially the same for both.

Both small and large dog types have been recovered from the oldest and the youngest deposits, and both occur over the whole of the geographic range sampled. However, if the sites which contain an MNI of ten or more are compared, it can be seen that type 1 dominates the samples (comprises 60% or more of the total) in six out of nine sites of Gulf of Georgia age (1400 bp to contact). The other three Gulf of Georgia sites contain almost equal proportions of both types. The three Marpole age (1400 to 2400 bp) samples have one site dominated by type 1 dogs, one dominated

by type 2 and one with equal proportions of each. Locarno (2400 to 3000 bp) and Charles (3000 bp to 4400 bp) age deposits with an MNI of more than ten are rare (2 each) but both of these are dominated by type 1 dogs.

The Marpole age deposits at the Beach Grove Golfcourse site stand out as unique, being both the largest assemblage as well as the only assemblage strongly dominated by type 2 dogs (MNI= 129; NISP = 147). Unfortunately, the context of this deposit is completely disturbed (Bernick 1989a, 1989b) and little can be offered by way of an explanation for why the pattern of dog remains here differs from all the others.

Of additional significance, Ozette (45CA24) and Tsawwassen (DgRs 2) remains are both represented by a high proportion of relatively intact crania for which the sex could be determined. In fact, specimens from these two sites together comprise slightly more than half of the total cranial sample. In addition, both sites contained a high proportion of type 1 (small) females. It may be that the high incidence of type 1 females is characteristic of these sites only. If true, this might indicate that deliberate breeding of the small dog on a relatively large scale (actual husbandry) was undertaken in only some locations. In addition, these site deposits which contain a high proportion of type 1 females are both dated to the most recent Gulf of Georgia culture type (ca. 1400 bp to contact), which may support the suggestion that husbandry of this breed was a relatively recent development (Amoss 1993). Clearly, more specimens from more sites will be needed before these kinds of conclusions can be drawn with any confidence. This analysis indicates that there may be significant underlying patterns in Northwest Coast dog remains that need to be investigated further.

Another aspect of the issue of husbandry is the implication contained in several of the ethnohistoric reports that maintaining the special breed characteristic of a thick wooly coat

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necessitated keeping wool dog females from breeding with village males. This assumption is supported by the results of modern experimental breeding trials, where it has been shown that in first-generation hybrids (F1) between two extreme parental types, coat density resembles that of the least dense parent. Also, short, coarse textured hair appears to be dominant over long, fine textured hair (Whitney 1948, cited in Burns & Fraser 1966). These experimental results suggest that there would have been a sound genetic basis for keeping wool dogs from interbreeding with village dogs. First-generation offspring from such a cross would undoubtedly resemble the village dog more than the wool dog in coat type and thus be of little

economic value. Interbreeding of wool dog females with village dog males undoubtedly occurred occasionally, either by accident or due to periodic neglect, but if the offspring did not possess the desired woolly fur it is doubtful these animals would have been used for future deliberate breeding.

If all of the husbandry effort was spent on keeping the wool dogs pure because of their economic worth, there was probably little energy expended in keeping wool dog males away from village dog females. In other words, hybridization in the other direction may have been tolerated if not exactly encouraged. Thus the village dog may not constitute a real "breed" in the same sense as

Table 10-1. Distribution of dog types per site by relative age of deposits (culture type) for total element counts and relative frequency of each type. (1069 elements total, as classified by initial analysis). Site locations as in Figure 2-1.

Site name	Site #	Relative age of deposits*	Total count	Type 1 frequency	Type 2 frequency	Geographic region
Crescent Beach	DgRr 1	Gulf of Georgia	70	66%	34%	Fraser Delta
St. Mungo Cannery	DgRr 2	Gulf of Georgia	1	0%	100%	Fraser Delta
Tsawwassen Beach	DgRs 2	Gulf of Georgia	18	94%	6%	Fraser Delta
Pender Canal	DeRt 2	Gulf of Georgia or older	18	72%	28%	Gulf Islands
Montague Harbour	DfRu 13	Gulf of Georgia	36	86%	14%	Gulf Islands
Belcarra Park	DhRr 6	Gulf of Georgia	31	52%	48%	Strait of Georgia
Stawamus	DkRs 6	Gulf of Georgia	1	0%	100%	Strait of Georgia
Departure Bay	DhRx 16	Gulf of Georgia	24	42%	58%	Vancouver Island East
Little Qualicum	DiSc 1	Gulf of Georgia	33	97%	3%	Vancouver Island East
Deep Bay	DiSe 7	Gulf of Georgia	24	75%	25%	Vancouver Island East
Cadboro Bay	DcRt 15	Gulf of Georgia	22	59%	41%	Vancouver Island South
Maple Bank	DcRu 12	Gulf of Georgia or older	86	52%	48%	Vancouver Island South
Ozette Village	45CA24	Gulf of Georgia **	216	52%	48%	Olympic Peninsula
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Beach Grove Golfcourse	DgRs 30	Marpole	147	10%	90%	Fraser Delta
Beach Grove midden	DgRs 1	Marpole	1	100%	0%	Fraser Delta
Crescent Beach	DgRr 1	Marpole	1	100%	0%	Fraser Delta
Glenrose Cannery	DgRr 6	Marpole or older	12	50%	50%	Fraser Delta
Gabriola Rockshelter	DgRw 204	Marpole or older	21	48%	52%	Gulf Islands
Montague Harbour	DfRu 13	Marpole	8	75%	25%	Gulf Islands
Ships Point	DjSe 6	Marpole	68	62%	38%	Vancouver Island East
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Crescent Beach	DgRr 1	Locarno	6	83%	17%	Fraser Delta
Pender Canal	DeRt 2	Locarno or younger	33	97%	3%	Gulf Islands
Montague Harbour	DfRu 13	Locarno	2	100%	0%	Gulf Islands
Buckley Bay	DfSf13	Locarno	10	30%	70%	Vancouver Island East
Tsable River	DfSf 14	Locarno or older	41	73%	27%	Vancouver Island East
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Crescent Beach	DgRr 1	Charles	3	33%	67%	Fraser Delta
St. Mungo Cannery	DgRr 2	Charles	76	82%	18%	Fraser Delta
Pender Canal	DeRt 2	Charles	60	83%	17%	Gulf Islands

* Gulf of Georgia - ca. 1400 bp to contact (ca. AD 1800); Marpole - ca. 2400 to 1400 bp; Locarno - ca. 3000 to 2400 bp; Charles (a.k.a. St. Mungo) - ca. 4400 to 3000 bp (after Croes & Hackenberger 1988). ** Ozette deposits dated ca. 500 bp.

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the wool dog: it was a breed more by default than by intent (this may account for the somewhat greater heterogeneity in cranial conformation of the type 2 sample that was apparent in the comparative analysis discussed in Chapter 4).

By the mid-eighteen hundreds, when the distinctive fur of the wool dog had lost its economic value, the incentive for keeping the two breeds apart vanished and both types were apparently left to interbreed freely. Under such unmanaged conditions, all distinctive traits of both breeds would have blended into one variable type. This historic blend may have produced occasional specimens that resembled one or the other of the

foundation types, but most individuals undoubtedly possessed a mixture of traits. In addition, given that European breeds of dogs may have been responsible for introgression of non-indigenous genes into populations of native Northwest Coast dogs quite early in the historic period, all historic period remains should be considered possible non-indigenous hybrids. It is especially important, therefore, to watch carefully for intrusive burials of historic-periods dogs in prehistoric deposits. Should such remains become mistaken for prehistoric dogs, they would seriously compromise future analyses.

Table 10-2. Distribution of dog types per site by relative age of deposits (culture type) for minimum number of individuals (MNI) and relative frequency of each type (total MNI = 659). Site locations as in Figure 2-1.

Site name	Site #	Relative age of deposits*	Total MNI	Type 1 frequency	Type 2 frequency	Geographic region
Crescent Beach	DgRr 1	Gulf of Georgia	51	80%	20%	Fraser Delta
St. Mungo Cannery	DgRr 2	Gulf of Georgia	1	0%	100%	Fraser Delta
Tsawwassen Beach	DgRs 2	Gulf of Georgia	9	89%	11%	Fraser Delta
Pender Canal	DeRt 2	Gulf of Georgia or older	18	72%	28%	Gulf Islands
Montague Harbour	DfRu 13	Gulf of Georgia	27	89%	11%	Gulf Islands
Belcarra Park	DhRr 6	Gulf of Georgia	30	53%	47%	Strait of Georgia
Stawamus	DkRs 6	Gulf of Georgia	1	0%	100%	Strait of Georgia
Departure Bay	DhRx 16	Gulf of Georgia	24	42%	58%	Vancouver Island East
Little Qualicum	DiSc 1	Gulf of Georgia	15	93%	7%	Vancouver Island East
Deep Bay	DiSe 7	Gulf of Georgia	20	70%	30%	Vancouver Island East
Cadboro Bay	DcRt 15	Gulf of Georgia	1	0%	100%***	Vancouver Island South
Maple Bank	DcRu 12	Gulf of Georgia or older	64	50%	50%	Vancouver Island South
Ozette Village	45CA24	Gulf of Georgia **	15	67%	33%***	Olympic Peninsula
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Beach Grove midden	DgRs 1	Marpole	1	100%	0%	Fraser Delta
Beach Grove Golfcourse	DgRs 30	Marpole	129	10%	90%	Fraser Delta
Crescent Beach	DgRr 1	Marpole	1	100%	0%	Fraser Delta
Glenrose Cannery	DgRr 6	Marpole or older	12	50%	50%	Fraser Delta
Montague Harbour	DfRu 13	Marpole	2	50%	50%	Gulf Islands
Gabriola Rockshelter	DgRw 204	Marpole or older	21	48%	52%	Gulf Islands
Ships Point	DjSe 6	Marpole	55	64%	36%	Vancouver Island East
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Crescent Beach	DgRr 1	Locarno	9	78%	22%	Fraser Delta
Pender Canal	DeRt 2	Locarno or younger	32	97%	3%	Gulf Islands
Montague Harbour	DfRu 13	Locarno	2	100%	0%	Gulf Islands
Buckley Bay	DfSf13	Locarno	9	33%	67%	Vancouver Island East
Tsable River	DfSf 14	Locarno or older	27	70%	30%	Vancouver Island East
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Crescent Beach	DgRr 1	Charles	3	33%	67%	Fraser Delta
St. Mungo Cannery	DgRr 2	Charles	16	75%	25%	Fraser Delta
Pender Canal	DeRt 2	Charles	52	88%	12%	Gulf Islands

* Gulf of Georgia - ca. 1400 bp to contact (ca. AD 1800); Marpole - ca. 2400 to 1400 bp; Locarno - ca. 3000- 2400 bp.

Charles (a.k.a. St. Mungo) - ca. 4400 to 3000 bp (after Croes & Hackenberger 1988). ** Ozette deposits dated ca. 500 bp.

*** One individual each from these sites are probably a type 1/2 hybrid